[F.]F) using at least one extended **[immobilised]** immobilized nucleic acid strand to repeat steps D) and E), so as to provide additional extended **[immobilised]** immobilized nucleic acid strands and, optionally,

[G.]G) repeating step F) one or more times.

3. (Twice Amended) A method according to claim 1, wherein said single-stranded target nucleic acid **[is produced by providing]** comprises a given nucleic acid sequence to be amplified (which sequence may be known or unknown) **[and adding thereto]** to which have been added a first nucleic acid sequence and a second nucleic acid sequence; wherein said first nucleic acid sequence **[hybridises]** hybridizes to one of said plurality of primers and said second nucleic acid sequence is complementary to a sequence which **[hybridises]** hybridizes to one of said plurality of primers.

4. (Twice Amended) A method according to claim 1; wherein said single-stranded target nucleic acid **[is produced by providing]** comprises a given nucleic acid sequence to be amplified (which sequence may be known or unknown) **[and adding thereto]** to which have been added a first nucleic acid sequence and a second nucleic acid sequence;. wherein said first nucleic acid sequence **[hybridises]** hybridizes to one of said plurality of primers and said second nucleic acid sequence is the same as the sequence of one of said plurality of primers.

5. (Twice Amended) A method according to claim 3 wherein said first and second nucleic acid sequences are provided at **[first and second]** 3' and 5' ends of said single-stranded target nucleic acid.

6. (Previously Amended) A method according to claim 3, wherein a tag is also added to the given nucleic acid sequence, said tag enabling amplification products of the given nucleic acid sequence to be identified.

7. (Previously Amended) A method according to claim 1 wherein the plurality of primers is a plurality of primers that have the same sequence.

8. (Previously Amended) A method according to claim 1, wherein the plurality of primers comprises at least two different types of primer, one type having a different sequence from another type.

9. (As filed) A method according to claim 8, wherein the plurality of primers consists of 2^n different types of primer; wherein n is an integer.

10. (As filed) A method according to claim 9, where n is 2.

11. (Twice Amended) A method according to claim 8, wherein the different types of primer are present in **[substantially]** about the same concentrations as one another.

12. (Twice Amended) A method according to claim 1, wherein the primers are **[substantially]** homogeneously dispersed over a given area.

B2 SUB E5

13. (Twice Amended) A method according to claim 1, wherein the primers are located in a predetermined arrangement (e.g. in a grid pattern).

14. (Twice Amended) A method according to claim 1, wherein a supply of nucleotides and a nucleic acid polymerase are used to extend primers.

15. (Twice Amended) A method according to claim 1, wherein heating is used to separate annealed nucleic acid strands.

16. (Previously Amended) A method according to claim 14, wherein the nucleic acid polymerase is not rendered inactive by the heating conditions used to separate annealed nucleic acid strands.

17. (Amended) A method according to claim 16, wherein said nucleic acid polymerase is *taq* polymerase, or is another polymerase that is derivable from a thermophilic organism; or is a thermostable derivative thereof.

B3 SUB E6

18. (Twice Amended) A method according to claim 1, wherein said primer extension results in the incorporation of one or more detectable labels (e.g. fluorescent labels or radiolabels) into extended **[immobilised]** immobilized nucleic acid strands.

19. (Twice Amended) A method according to claim 1, further including the step of treating one or more extended **[immobilised]** immobilized nucleic acid strands so as to release a nucleic acid molecule or a part thereof.

20. (As Filed) A method according to claim 19, wherein said treating consists of cleavage with a restriction endonuclease or with a ribozyme.

21. (Previously Amended) A method according to claim 1, wherein one or more of said primers has a restriction endonuclease recognition site or a ribozyme recognition site or has part of such a site, which part becomes complete when primer extension occurs.

22. (Previously Amended) A method according to claim 1 that is automated to allow repeated cycles of nucleic acid amplification.

23. (Previously Amended) A method according to claim 1, when used to amplify a plurality of different nucleic acid sequences

24. (As Filed) A method according to claim 23, when used to amplify a plurality of different nucleic acid sequences simultaneously.

25. (Previously Amended) A method according to claim 23, wherein said different nucleic acid sequences are each provided with a first and second nucleic acid sequence as described in any of claims 3 to 5, said first and second nucleic acid sequences being the same for the each of the different nucleic acid sequences.

26. (Previously Amended) A method according to claim 23, wherein said different nucleic acid sequences are each provided with a different tag so that the different sequences can be distinguished from one another.

27. (Amended) A plurality of **[immobilised]** immobilized nucleic acids producable by a method according to any preceding claim.

28. (Amended) A plurality of **[immobilised]** immobilized nucleic acids in the form of one or more distinct areas on a surface, each area comprising a plurality of identical nucleic acid strands and a plurality of identical complementary strands thereto; wherein each nucleic acid strand within such an area is located so that another nucleic acid strand is located on the surface within a distance of the length of that strand.

B4 cont'd

29. (Amended) A plurality of **[immobilised]** immobilized nucleic acids according to claim 27 or claim 28, wherein there is at least one distinct area present per mm^2 of surface on which the nucleic acids are **[immobilised]** immobilized.

30. (Amended) A plurality of **[immobilised]** immobilized nucleic acids according to claim 28, wherein the number of distinct areas/mm^2 of surface on which the nucleic acids are **[immobilised]** immobilized is greater than 1, greater than 10^2, greater than 10^3 or greater than 10^4.

59. (Twice Amended) An apparatus for performing a method as described in claim 1; comprising a plurality of **[immobilised]** immobilized primers, a nucleic acid polymerase, a plurality of nucleotides and means for separating annealed nucleic acid strands.

60. (As Filed) An apparatus according to claim 59, wherein the means for separating annealed nucleic acid strands comprises a controlled heating means.

61. (Twice Amended) An apparatus for **[analysing]** analyzing a plurality of nucleic acid molecules **[according to claim 27]** producable by a method according to claim 1, wherein said apparatus comprises a source of reactants and detector means for detecting one or more signals produced after said reactants have been applied to said nucleic acid molecules.

62. (Previously Amended) An apparatus according to claim 61 wherein said detector means has sufficient resolution to distinguish between the distinct areas on a surface, each area comprising a plurality of identical nucleic acid strands and a plurality of identical complementary strands thereto; wherein each nucleic acid strand within such an area is located so that another nucleic acid strand is located on the surface within a distance of the length of that strand.

63. (Previously Amended) An apparatus according to claim 61 comprising a charge coupled device (CCD).

64. (As Filed) An apparatus according to claim 63 wherein said charge coupled device (CCD) is operatively connected with a magnifying device (e.g. a microscope).

65. (Twice Amended) A kit for use in screening, diagnosis or in nucleic acid sequencing; comprising a plurality of **[immobilised]** immobilized nucleic acid according to claim 27.